

# Match-Up

# Rotation Matrices

<b>1</b>	$\begin{pmatrix} \frac{1}{2} & \frac{\sqrt{3}}{2} \\ -\frac{\sqrt{3}}{2} & \frac{1}{2} \end{pmatrix}$
<b>2</b>	$\begin{pmatrix} -\frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2} \\ -\frac{\sqrt{2}}{2} & -\frac{\sqrt{2}}{2} \end{pmatrix}$
<b>3</b>	$\begin{pmatrix} \frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2} \\ -\frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2} \end{pmatrix}$
<b>4</b>	$\begin{pmatrix} \frac{1}{2} & -\frac{\sqrt{3}}{2} \\ \frac{\sqrt{3}}{2} & \frac{1}{2} \end{pmatrix}$
<b>5</b>	$\begin{pmatrix} \frac{\sqrt{2}}{2} & -\frac{\sqrt{2}}{2} \\ \frac{\sqrt{2}}{2} & \frac{\sqrt{2}}{2} \end{pmatrix}$
<b>6</b>	$\begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}$
<b>7</b>	$\begin{pmatrix} -\frac{\sqrt{3}}{2} & \frac{1}{2} \\ -\frac{1}{2} & -\frac{\sqrt{3}}{2} \end{pmatrix}$
<b>8</b>	$\begin{pmatrix} -1 & 0 \\ 0 & -1 \end{pmatrix}$
<b>9</b>	$\begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$
<b>10</b>	$\begin{pmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{pmatrix}$

<b>A</b>	Rotation 90° anti-clockwise about (0, 0)
<b>B</b>	Rotation 45° anti-clockwise about (0, 0)
<b>C</b>	Rotation 180° about the origin
<b>D</b>	Rotation 120° anti-clockwise about (0, 0)
<b>E</b>	Rotation 300° clockwise about (0, 0)
<b>F</b>	Rotation $\theta^\circ$ anti-clockwise about (0, 0)
<b>G</b>	Rotation 135° anti-clockwise about (0, 0)
<b>H</b>	Rotation 90° clockwise about the origin
<b>I</b>	Rotation 210° anti-clockwise about (0, 0)
<b>J</b>	Rotation 45° clockwise about the origin

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>D</b>	<b>G</b>	<b>J</b>	<b>E</b>	<b>B</b>	<b>A</b>	<b>I</b>	<b>C</b>	<b>H</b>	<b>F</b>